

viscid mucus, which cannot be expelled through the wound, and emphysema.

He reports three cases in illustration of his method, all of which were successful, recovery ensuing in all but one, in which an insane subject reopened his own wound.

He dwells upon the necessity of securely fixing the head and steadying the neck during the healing of these wounds after closure by suture, and summarizes the advantages of his method as follows :

(1) The cut edges of each structure being brought into exact apposition, and so retained by the sutures, union by first intention is secured.

(2) This rapidity of union allows of rectal feeding being employed up to the time the patient can swallow naturally.

(3) The distress caused by feeding three or four times a day, through a tube passed into the pharynx or œsophagus, is thereby avoided.

(4) The prevention of painful or distressful attempts at swallowing, attended by the escape of the fluid at the wound, and the excitement of troublesome spasmodic cough.

(5) The prevention of the great risk of contraction or stricture of the air passage or food passage so likely to follow when the wounds have been allowed to heal by granulation.

(6) The prevention of a temporary or permanent fistula opening into the air or food passage.

(7) The avoidance of an *alleged* danger in cases where the epiglottis is cut through, viz., of suffocation from the detached portion of the epiglottis falling over the upper aperture of the larynx.—*London Lancet*, December 24, 1892.

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BONES-JOINTS, ORTHOPÆDIC.

I. The Later Results of Laminectomy for Paraplegia Due to Angular Curvature. By W. ARBUTHNOT LANE, M.S. (London). Of eleven cases operated on two terminated fatally.

CASE I was an extremely feeble, pallid child, aged five and a half years, who died a few hours after the operation. In this case the bodies of several vertebræ were very extensively diseased, and the amount of blood lost at the time of the operation, though very slight in quantity, was yet, when added to the exhaustion resulting from the chloroform, sufficient to kill the child.

This was the only one of the eleven cases in which death or any evil result whatever was consequent upon the operation.

CASE II.—The fatal termination in the second case had no causal relationship whatever with the operation, but resulted six whole days after it from a sudden and excessive hæmorrhage from a polypus of the rectum; this appeared to have been started by the administration of a teaspoonful of compound licorice powder the night before.

Two other cases were unsuccessful, being only temporarily and partly benefited by operative interference.

CASE III.—W. S., aged sixteen, had very extensive disease of the dorsal spine, from which he had suffered for a long time. He had had marked paraplegia for six months, and when operated on this was complete. The spinal cord was exposed on three separate occasions within a period of fourteen or fifteen months, and large quantities of tuberculous material and carious bone were removed. On the third occasion large pieces of dead bone, as large as the end of the finger, were taken out of the cavity below the cord. Some benefit was derived from each operation, but the steady and comparatively rapid progress of the disease soon obliterated the advantage gained. He died later from pneumonia, probably complicating influenza, with which his paralyzed condition rendered him quite unable to cope successfully.

CASE IV.—J. M., a lad, aged seventeen, gave only a month's history of progressive paraplegia. At the operation the posterior surface of the bodies of three or four dorsal vertebræ were found to be deeply infiltrated by tuberculous material, a quantity of caseous material compressing the cord. He improved after the first operation, but

as a relapse of his original symptoms took place, another and a more extensive operation was performed. An abscess was then found in the right side of the chest, and the bodies of the vertebræ were found to be more deeply involved than was suspected at the first exploration. He improved but slightly on this occasion, and soon relapsed. He refused any further active interference, and though the treatment by recumbency was continued he did not improve. I have been unable to find him, as his parents have changed their address, so cannot report as to his present condition.

CASE V.—H. S., a boy, who gave eleven months' history of paraplegia, with more or less incontinence of urine and fæces, was apparently sinking rapidly from pulmonary complications, was operated on in February, 1890. He rapidly lost his paraplegic symptoms and gained in health and strength, his cough also disappearing. He now leads a very active life, having had no recurrence of his paraplegic or spinal symptoms, the tuberculous disease being apparently cured.

CASE VI.—H. M., aged thirty-two, gave about three weeks' history of progressive paraplegia, which, while he was treated by recumbency alone, rapidly became almost, if not quite, complete. He was operated on in May, 1890; an abscess was opened, and much tuberculous material removed. He gained complete power over his legs, and since the operation has had no return of paraplegic symptoms. The spinal disease is apparently cured. He says it is only after he has walked a considerable distance that he feels any weakness in his back.

CASE VII.—K. B., aged twenty-one, gave more than nine months' history of paraplegia, which had been complete for some considerable time before her admission. She had also a disorganized knee-joint. She was extremely feeble physically. On November 5, 1890, she was operated on, and in a remarkably short space of time all symptoms of paraplegia had disappeared. The knee was excised on November 30. After the first operation complete paraplegia and cystitis developed very rapidly, and a second operation

was performed. On this occasion a considerable quantity of pus and caseous material was evacuated, when she recovered as rapidly as she had done before. The excised knee did well. I heard from Dr. Bernard Scott, whose patient she was, that she died of influenza about eight months after she left the hospital, and that she had had no recurrence of the paraplegic symptoms, nor had she any trouble in her back or knee.

CASE VIII.—A. T., aged seven, gave six weeks' history of rapidly progressive paraplegia, which became almost complete, sensation being much impaired. He was operated on February 10, 1891, a large abscess which compressed the cord anteriorly being opened, cleansed and filled with iodoform. He recovered rapidly and completely, and now leads as active a life as a boy with so marked a deformity can. The angular curve is now apparently firmly ankylosed, and free from disease.

CASE IX.—S. T., aged twenty-three, a very delicate man, had paraplegia five years before admission, and recovered after fifteen months' recumbency. Three months before admission paraplegia steadily returned. He was operated on in July, 1891, when a large abscess extending well into the chest, the walls being formed by bone, was exposed and evacuated. It was obvious that this abscess had existed since the first attack of paraplegia. He has now regained control over his legs and can walk about, though not for very long distances. He is troubled by a slight purulent discharge from an abscess which formed in the loin, the spinal trouble being in the mid-dorsal region. This discomfort will, I hope, be removed during the next few months. He has gained in strength, but has a suspicious condition of the apex of one lung.

CASE X.—E. R., aged eight, a feeble, deformed child, rapidly developed paraplegia, which appeared three weeks before the operation, and became almost complete. The spinal canal was opened on May 2, 1891, when extensive caries and necrosis of the bodies of two or more vertebræ were found. He soon recovered power over his legs, and led as active a life as his deformity permitted. Recently a

sinus has formed in the vicinity of the cicatrix, and some pus discharges daily from it. It improves rapidly under treatment and will, I have no doubt, close shortly. He has had no return of the paraplegic symptoms.

CASE XI.—W. H. W., a very delicate, deformed boy, seven years of age, gave five weeks' history of paraplegia, which developed more or less suddenly, and was accompanied by imperfect control over the sphincters. He was operated on in April, 1891, when extensive disease of the bodies of two or three vertebræ was found. He recovered rapidly. He now leads an active life, has had no return of the paraplegic symptoms, and the spinal disease is apparently cured.

The author recommends operating on these cases as early as possible, if a short period of recumbency is not followed by definite improvement.

The operation in no way interferes with the treatment by recumbency, the latter being a necessary consequence of the former in order that the spine may anchylose firmly. If a case does not recover with operative treatment and recumbency, it obviously will not recover if treated by recumbency alone. He points out that one of the cases had, after fifteen months' recumbency, been cured of his paraplegia; but that it was found on operating on him for a relapse of his symptoms, five years afterward, that the relief of the cord from pressure had been due to an extension of the abscess forward into the chest, where it had acquired a more or less perfect bony wall, and remained latent for five years. The tension within the abscess then increased for some reason or another, and paraplegia again developed. On this occasion the abscess cavity, which was as large as a tangerine orange, was readily and effectually cleared of its contents.—*British Medical Journal*, December 31, 1892.

II. Passive Congestion in the Conservative Treatment of Tuberculous Joints. By HERBERT W. PAGE (London). The author describes the method practiced by Bier in Esmarch's clinic at